

*Beant  
sub  
C2*  
segment, allowing said probe to bind to said targeted chromosomal material and detecting  
said bound probe.

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**REMARKS**

Entry of the foregoing, reexamination and reconsideration of the above-identified application as amended are respectfully requested.

The title has been amended in view of the Examiner's objection. This title is believed to more clearly describe the invention as claimed. Claim 1 has been amended to delete the recitation of retinoblastoma gene. The claim has also been amended to recite that at least one component of the high complexity nucleic acid probe is targeted to paracentromeric-specific nucleic acid sequences. These amendments have been made to more clearly define applicants' invention and to correct matters of form. Support for this claim may be found at the very least in original claim 14 of the application.

The specification has been objected to and claim 1 has been rejected under 35 U.S.C. §112, first paragraph. To expedite prosecution on the merits of this application, claim 1 has been amended to delete reference to the retinoblastoma gene. The claimed invention is now directed to detecting rearrangements of chromosomes 3 and/or 17. In view of the Examiner's comments, this objection/rejection under §112(1) should be rendered moot by this amendment.

Claim 1 has also been rejected under 35 U.S.C. §112, first paragraph, as the disclosure is allegedly enabling only for claims directed to specific retinoblastoma

rearrangements. Because the claim has been amended to delete reference to the retinoblastoma gene and to delete the recitation of "vicinity", it is believed that this rejection is also now moot in view of the instant amendment.

Claim 1 has been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. This rejection is believed to be moot in view of the instant amendment. The claim has been amended to recite steps as requested by the Examiner. The claim has also been amended to delete "sequence" in favor of "segment" in view of the Examiner's rejection. The term "segment" is used herein to indicate a stretch of nucleic acid with a given order of nucleic acid bases. The invention as claimed is believed to be sufficiently clear to a person skilled in the art.

Now turning to the prior art of record, claim 1 was rejected under 35 U.S.C. §103 as being unpatentable over Weissman et al. For at least the reasons set forth herein, this rejection is improper.

Weissman describes the detection of chromosomal rearrangements, e.g., the spacing between genes including linkage that may be related to a disease. Weissman, however, fails to disclose or even suggest applicants' invention as now claimed. Weissman is unrelated to a method of staining targeted chromosomal material based upon nucleic acid segment employing high complexity nucleic acid probes wherein said targeted chromosomal material is a genetic rearrangement associated with chromosome 3 and/or chromosome 17 in humans. Nor does Weissman include any motivation to detect such chromosomal rearrangements.

Moreover, Weissman fails to teach using a high complexity nucleic acid probe wherein at least one component of the high complexity nucleic acid probe is targeted to a paracentromeric-specific nucleic acid segment as now claimed. Weissman contains no teaching or even suggestion of using such a centromeric probe as now claimed by applicants.

Withdrawal of this rejection is thus respectfully requested and believed to be in order.

Claim 1 of this application has also been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-20 of copending Application Serial No. 08/487,701. Claim 1 has also been provisionally rejected under 35 U.S.C. §101 as claiming the same invention as that of claim 1 of Application Serial Nos. 08/487,701 and 08/477,316. It is requested that these provisional rejections be held in abeyance until the scope of the claims in each application has been determined. These provisional rejections should be reevaluated by the Examiner in view of the instant amendment as well as amendments to the claims in the copending applications.

Regarding the objections to the disclosure in view of informalities such as incomplete citations, it is respectfully requested that the objections be withdrawn in view of the amendments to the specification to complete the citations.

Further and favorable action in the form of a Notice of Allowance is respectfully requested. Such action is believed to be in order.

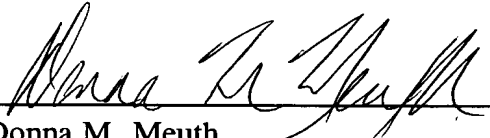
Application Serial No. 08/478,387  
Attorney's Docket No. 028723-061

In the event that there are any questions relating to this response, or to the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

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